The TZUY TURBINE
It's working principle
(a review)

I assumed that you have read the invention disclosure and understand the working principle of the hydraulic machine applied to the TZUY TURBINE. We need to review again to refresh our ideas.

The TZUY TURBINE is already assembled. The rotor 1 is already inserted inside the housing or casing 2 and the left cover 4 and the right cover 3 are already bolted to the housing or casing 2. We have to start first with the flow of the working fluid. (Please refer to the TZUY TURBINE invention disclosure drawings with numbers)

The working fluid 27 from the outside source will enter the intake pipe 5 and it will flow to the external entrance chamber 11 or the circular rim-like canal and fill its empty space. (Please see figure 4 in the original drawing) We will just suppose first that the working fluid under pressure has no exit or outlet. Then, the working fluid pressure build up inside the external entrance chamber 11 or the rim-like circular canal 11 as if we are pumping air inside the interior tire of a bicycle. This is because the rotor 1 with its protruding round edges 15 (please see the round edges 15 of the rotor in figure 1 and figure 5) has a microscopic clearance or gap between the internal circular wall of the housing or casing 2. With the use of oil as lubricant between the two rubbing surfaces it will help enhance to make a perfect seal. We understand now that the external entrance chamber 11 of the rotor 1 of the TZUY TURBINE when introduced with fluid pressure will have no working fluid leakage that is expected to occur.

Let us now proceed to the next step. The external entrance chamber 11 of the rotor 1 has a rectangular hole 9 (please see the rectangular hole 9 in figures 1, 5, 6 and 7) connected to the internal entrance chamber 8. (Please see figure 3)

From the external entrance chamber 11 (please see figures 4 and 5) of the rotor 1 the working fluid 27 will pass through a rectangular hole 9 then to the internal entrance chamber 8 of the rotor 1. (please see the lower drawing in figure 3) The working fluid 27 will fill the empty space of the internal entrance chamber 8 and continue to flow outward by passing the rectangular opening 8a and 8b. (please see 8a in figure 6) And it will continue to flow to the semi-circular canal 21 on the left cover 4 and to the semi-circular canal 20 on the right cover 3 of the housing or casing 2. The working fluid 27 can only flow to the semi-circular canals if the blade 13 is protruding from the rotor 1.

We can see the blade 13 in figure 1 protruding from the blade's chamber. In figure 4 we can also see the protruding blade 13 from the rotor 1. It perfectly fit with a microscopic clearance or gap to the semi-circular canal 21 on the left cover 4 of the housing or casing 2. The blade 13 protrudes on its maximum length. The other end of the blade 13 is hidden in the rotor 1 for automatic lubrication. The blade 13 is lubricated as it slides inside the rotor 1 for a better performance.